Form C-104
Rev. 09/2008

VALUE ENGINEERING CHANGE PROPOSAL
MISSOURI DEPARTMENT OF TRANSPORTATION

Date 3-30-09

Contract ID 080919-X01 **Job No.** J0P0572F

County Stoddard - 60 **Original Bid Cost** $2,782,748.24

Contractor Emery Sapp & Sons **By** Josh Doerhoff

Designed By MoDOT **Phone** 573-445-8331

VECP# 09-19 **(to be completed by C.O.)** **VECP** ☒ **or** **VECP/PDU** ☐

1. **Description of existing requirements and proposed change(s). Advantages/Disadvantages**
   The existing plans call for full depth removal of existing asphalt on the North tie in to Hwy 51. The contract currently calls for optional pavement to replace the existing asphalt. Emery Sapp & Sons plans to construct this tie in using concrete. In order to construct the tie in using concrete Emery Sapp & Sons planned on utilizing an aggregate bypass during the construction process. We believe that the existing asphalt is in good condition and can be milled down approximately 1.75", then overlayed. This will shorten the construction duration as well as completely eliminate any use of an aggregate bypass.

2. **Estimate of reduction in construction costs.** $1,608.89

3. **Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.**
   None

4. **Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.**

   3-30-09
   (date)

5. **Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.**

   4-13-09 (date) — Construction will begin. (effect)

6. **Dates of any previous or concurrent submission of the same proposal.**

   3-9-09
   (date and/or dates)

Additional Comments:

**** Portion Below This Line To Be Filled Out by MoDOT ****

Comments: The results of exploratory cores showed sufficient pavement structure. However, if the milling operation results in greater than expected removal of pavement, Emery SAPP should be responsible to correct this at their expense.

David L. Thyer — Submitted By Resident Engineer — 4/8/2009 — Date

Comments: Recommend 50/50 split.

☑ **Approval Recommended**
☐ **Rejection Recommended**

Mark Shelton by R. Pfeifer — District Engineer — 4-9-09 — Date

Comments:

☐ **Approval Recommended**
☐ **Rejection Recommended**

N/A — Federal Highway Administration **Required for FHWA Full Oversight Projects** — Date

Comments: Agree w/ RE and district comments

☑ **Approval**
☐ **Rejection**

David D. Gaves BAW — State Construction and Materials Engineer — 4-10-09 — Date

Distribution: Resident Engineer, Project Manager, District Construction & Materials Engineer, State Construction & Materials Engineer, Value Engineering Administrator – MoDOT, P. O. Box 270, Jefferson City, MO 65102

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O: 417.833.9915
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March 30, 2009

Mr. David Wyman, Asst. R.E.
Missouri Dept. of Transportation
2910 Barron Rd
Poplar Bluff, MO 63901

RE: Value Engineering North Tie In,
Rte.60, Stoddard County
Job No J0P0572F

Mr. Wyman:

Emery Sapp & Sons has revised the Value Engineering Proposal originally submitted on March 9th, eliminating the use of an Aggregate Bypass as well as reduce the amount of full depth pavement on the North Tie In to Hwy 51. Attached you will find a copy of MoDOT's Value Engineering Form C-104 as well as a detailed estimate of the cost savings. The total saving to MoDOT included in the Value Engineering proposal totals $1,608.89.

Attached is a detailed breakdown of the total savings as well as revisions to the original proposal. Emery Sapp & Sons took several shots on the North Tie In in order to determine the final thickness of the existing asphalt after the proposed milling takes place. These cross sections showed that 75' of the existing asphalt in the North Bound lane between stations 5+50 and 6+25 would be milled to a depth that would eliminate the base material below. We plan to remove this area in its entirety and replace with 10.25" of BP-1 placed on the existing subgrade. After this section is removed and filled we will continue with the final overlay. We elected to use BP-1 to construct the full depth section in order to keep from switching mix designs during the construction of the tie in.

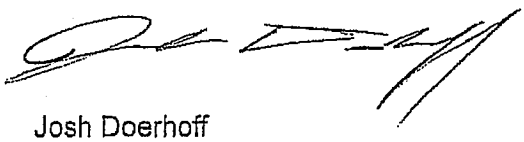
Additional quantities of BP-1 were also figured for the wedging that will need to take place on the New North Connection. By increasing the quantities for the BP-1 we were able to get our subcontractor to decrease their unit prices for the asphalt as well.

Although the total savings of the proposal decreased significantly we still believe that this Value Engineering Proposal will also save money that is not directly related to this contract. The elimination of the aggregate bypass and the reduction in the amount of time that the North Tie In is under construction will be a much safer alternative while saving money for the traveling public, state and local police as well as governmental authorities. The additional savings for the parties listed above are a result of reduced construction administration cost, potential liability, traffic and traffic flow regulation cost, and traffic congestion and motorist delay. These savings are not reasonably capable of being computed or quantified but none the less must be recognized as a savings due to this improvement in construction staging.

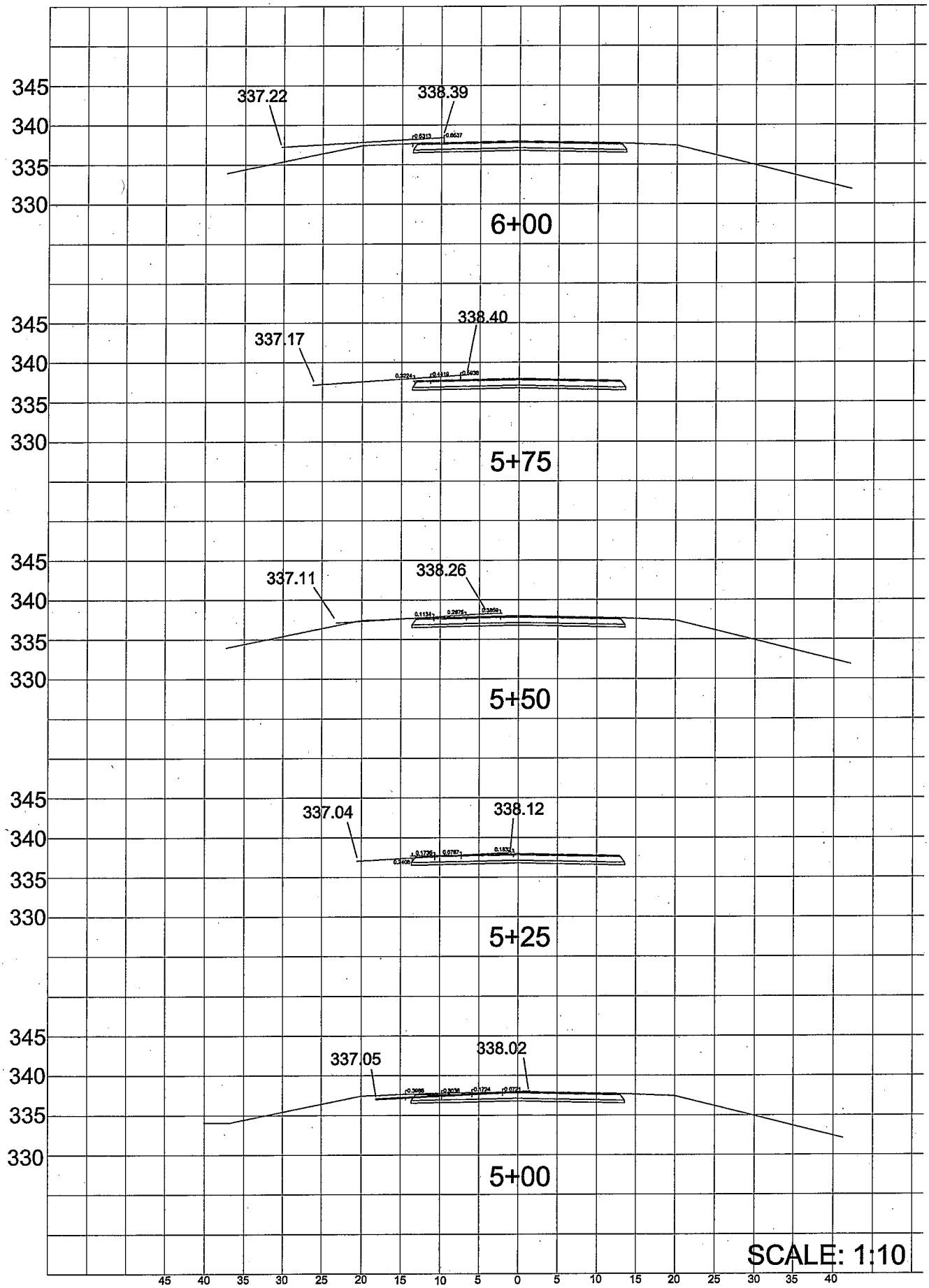
If you need any additional information, please don't hesitate to call.

Sincerely,

Emery Sapp & Sons, Inc.



Josh Doerhoff
Project Manager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Value Engineering North Tie In

1	Class 2 Linear Grading	X	1.50	STA	X	$	850.00	/ STA	=	$	1,275.00
1	8" Optional PCCP	X	1,444.00	SY	X	$	36.00	/ SY	=	$	51,984.00
1	Misc Optional Pavement for Driveways	X	1,231.00	SYS	X	$	36.00	/ SY	=	$	44,316.00
1	Misc Traffic Control North Tie In	X	1.00	LS	X	$	10,000.00	/ LS	=	$	10,000.00
1	4" Type 1 Aggregate Base	X	1,288.00	SY	X	$	6.65	/ SY	=	$	8,565.20
1	Additional Mobilization	X	-1.00	LS	X	$	1,500.00	/ LS	=	$	(1,500.00)
1	BP-1 Overlay PG 64-22	X	-306.11	TNS	X	$	172.73	/ TN	=	$	(52,873.11)
1	Misc Coldmilling	X	-1,288.00	SY	X	$	13.03	/ SY	=	$	(16,782.00)
1	PMBB PG 64-22	X	-459.90	TNS	X	$	92.93	/ TN	=	$	(42,736.21)
1	Engineering	X	-8.00	HRS	X	$	80.00	/ HR	=	$	(640.00)

Total Savings = $ 1,608.89

VALUE ENGINEERING CHECK SHEET

TYPE OF WORK

(Check one that applies)

- ☐ Bridge/Structure/Footings
- ☐ Drainage Structures (RCP, RCB, CMP's, ect.)
- ☐ TCP/MOT
- X Paving (PCCP, ect.)
- ☐ Grading/MSE Walls
- ☐ Signal/Lighting/ITS
- ☐ Misc. _____

SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

Instead of removing and replacing existing pavement to tie-in the new pavement, the contractor is proposing to mill the existing pavement and overlay with asphalt. This will shorten the construction time as well as improve traffic flow.

SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.

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